IVS 230 Inventory
Exposure Draft

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Please send comments to: comments@ivsc.org
Notice to Recipients of This Exposure Draft

A copy of the IVS Basis of Conclusions is also available at www.ivsc.org.
Dear All

The valuation of inventory project resulted from feedback received during the agenda consultation process conducted by the IVSC in 2017 and 2018. The project has been led by the Business Valuation Board, with support from the Standards Review Board. As outlined in this Exposure Draft, the Business Valuation Board are carrying out a transparent and robust standard-setting process that entails research, market engagement, and this Exposure Draft and resulting consultation process.

This Exposure Draft not only provides the draft standard (IVS 230 Inventory), but also outlines additional insights on the process, information considered, and ultimate rationale for preliminary conclusions reached by the Boards.

Depending on feedback received as part of this consultation process, the IVSC Boards would propose issuing a final Standard for IVS 230 Inventory in mid-2020, with an effective date no earlier than January 2021. As with the entirety of IVS, due to ever-changing market conditions, the IVSC will continue to monitor the applicability of IVS 230 Inventory during and after the issuance of the final Standard.

We thank those who participated in the consultation process and look forward to your participation in the future standard-setting activities of the IVSC.

Kind regards

Mark Zyla
Chair, IVSC Standards Review Board

Andreas Ohl
Chair, IVSC Business Valuation Board

Kevin Prall
Technical Director, IVSC Business Valuation Board
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I. Introduction

Purpose of the IVS 230 Inventory Exposure Draft

As part of ongoing efforts to improve its standard-setting process and consistent with the goals in the IVS Purpose and Strategy Document, the IVSC believes that the IVSC should be operating in an open and transparent way. The Boards (collectively Standards Review, Business Valuation, Financial Instruments, and Tangible Asset Boards) believe that this document (IVS 230 Inventory Exposure Draft) outlining the draft standard and considerations related to IVS General Standards and Business Valuation Asset Standards is a critical part of a transparent standard-setting process, consistent with the practices of other standard setters around the world, such as the International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB).

The background and basis for conclusions in this Exposure Draft do not form part of proposed IVS 230, but have been drafted to provide the reader with the background and rationale for the Exposure Draft. The IVSC believes that this Exposure Draft provides important insights into the standard-setting process and provides historical context which may aid in the interpretation of these standards and in future standard-setting activities.

To make the IVS more adaptable to future standard-setting, the Boards recognised that most standard-setters engage in targeted improvements to their standards over time, potentially adding or removing paragraphs or entire standards over time in response to market needs. The numbering for standards and paragraphs within IVS is intended to allow greater flexibility in making targeted improvements to IVS over time. IVS 230 represents the second new Chapter since the issuance of IVS 20171.

Background

IVS was issued in July 2019 and has an effective date of 31 January 2020. The IVSC Boards issued the Invitation to Comment (ITC) on 15 May 2017. On the basis of IVSC’s “Gap Analysis” and other input from stakeholders submitted as part of the IVS 2017 consultation process, the ITC included the following major valuation topics:

1. Non-Financial Liabilities 4. Biological Assets
2. Discount Rates 5. Extractive Industries
3. Early Stage Valuation 6. Inventory

Based on the feedback gathered during the ITC process the Boards prioritised certain topics, which were the subject of the IVS 2017 Proposed Revisions Exposure Draft issued on 17 July 2018. The proposed revisions contained in the IVS 2017 Proposed Revisions Exposure Draft relate namely to discount rates, as well as new standards on complex capital structures that are often applicable to the valuation of early stage companies.

1 See IVS 220 Non-Financial Liabilities Exposure Draft
IVS has no standards specific to the valuation of inventory. Additionally, preliminary investigations by the Boards have concluded that there is limited technical guidance specifically relating to the valuation of inventory. These factors, combined with the unique methodologies to value inventory, indicates that standards would be helpful toward improving consistency and quality in the marketplace. The Boards therefore agreed that a dedicated project was required to determine appropriate valuation practice for inventory and develop necessary dedicated standards.

Historical guidance regarding the valuation of inventory comes from Statement of Financial Accounting Standards No. 141 (SFAS 141), Business Combinations, issued June 2001, and superseded by ASC 805, which provides guidance regarding measurement methods for specific assets and liabilities assumed in business combinations, including inventory. While SFAS 141 has been superseded, in many ways its guidance remains consistent with practices applied today. Paragraph 37 of SFAS 141 provided general guidance for assigning purchase consideration to inventory assets acquired as follows:

1. Finished goods and merchandise at estimated selling prices less the sum of (a) costs of disposal and (b) a reasonable profit allowance for the acquiring entity.

2. Work in process at estimated selling prices of finished goods less the sum of (a) costs to complete, (b) costs of disposal, and (c) a reasonable profit allowance for the acquiring entity based on profit for similar finished goods.

3. Raw materials at current replacement costs.

More recently, on 19 November 2018 the AICPA released a Working Draft of Inventory Valuation Guide from the Forthcoming AICPA Accounting and Valuation Guide Business Combinations. IVSC has monitored the AICPA progress, and where applicable and appropriate, sought to harmonise IVS with the AICPA Guide as it relates to inventory valuation.

**Scope**

The Business Valuation Board notes that the most common context for the valuation of inventory is financial reporting related to a business combination. In this context, the definition of inventory includes raw materials, work-in-process (WIP) and finished goods. Although SFAS 141 has been superseded, in many ways current practice remains consistent with its guidance. Specifically, two primary methods may be used to determine the value of inventory: the Replacement Cost Method (the “Bottom-Up Method”) and the Comparative Sales Method (the “Top-Down Method”).

The Bottom-Up Method, commonly used to value raw materials, estimates the cost that the buyer would have incurred in acquiring the same amount and type of inventory in the marketplace. The components of cost under this method may include purchasing, handling, transporting, and storing the inventory. The cost basis is then adjusted for other relevant factors, such as obsolescence and compensation to the seller for a return on expenditures.

The Top-Down Method, commonly used to value WIP and finished goods, values inventory at a base cost equivalent to the actual or expected selling price to customers in the ordinary course of business.
of business. The base cost is then adjusted for various factors, such as expenses incurred in disposition, profit commensurate with the degree of risk and amount of investment, and the time/cost required to dispose of the inventory.

Although there is general consensus that the Top-Down Method is the most often utilised for the valuation of WIP and finished goods, stakeholder feedback and Business Valuation Board observations indicate divergence in practice in the application of the Top-Down Method. The Boards note less divergence in practice related to the application of the Bottom-Up Method.

In consultation with the Tangible Asset Board, it was determined that real property inventory is already covered by IVS 410 Development Property. As such, this standard focuses on valuation of inventory of physical goods that are not real property, as the numerous and varied aspects of real property inventory were not considered or contemplated in the preparation of this standard.
II. Research

The Business Valuation Board and Staff conducted market research as part of the inventory project. Given the limited technical guidance and standards for inventory, the Board felt that a broad research effort was necessary to identify best practices and ensure consistency with other related markets. The Board and staff conducted research in the following key areas:

- Accounting insights
- Valuation guidance and practice

Accounting Insights

The FASB ASC Master Glossary definition for inventory is:

“The aggregate of those items of tangible personal property that have any of the following characteristics:

a. Held for sale in the ordinary course of business
b. In process of production for such sale
c. To be currently consumed in the production of goods or services to be available for sale.

The term inventory embraces goods awaiting sale (the merchandise of a trading concern and the finished goods of a manufacturer), goods in the course of production (work in process), and goods to be consumed directly or indirectly in production (raw materials and supplies). This definition of inventories excludes long-term assets subject to depreciation accounting, or goods which, when put into use, will be so classified. The fact that a depreciable asset is retired from regular use and held for sale does not indicate that the item should be classified as part of the inventory. Raw materials and supplies purchased for production may be used or consumed for the construction of long-term assets or other purposes not related to production, but the fact that inventory items representing a small portion of the total may not be absorbed ultimately in the production process does not require separate classification. By trade practice, operating materials and supplies of certain types of entities such as oil producers are usually treated as inventory.”

The above definition requires clarification regarding the exclusion of depreciable assets from the inventory model, as certain assets may be classified as inventory for certain companies and depreciable assets for others. For example, an automobile would clearly meet the definition of inventory for the manufacturer but would be a depreciable asset as part of a fleet for another company.

IAS 2 – Inventories states that inventories include assets held for sale in the ordinary course of business (finished goods), assets in the production process for sale in the ordinary course of business (work in process or WIP), and materials and supplies that are consumed in production (raw materials). However, IAS 2 excludes certain inventories from its scope: work
in process arising under construction contracts (see IAS 11 Construction Contracts), financial instruments (see IAS 39 Financial Instruments: Recognition and Measurement), and biological assets related to agricultural activity and agricultural produce at the point of harvest (see IAS 41 Agriculture).

IAS 2 provides a definition of net realisable value (NRV) as the estimated selling price in the ordinary course of business, less the estimated cost of completion and the estimated costs necessary to make the sale. However, neither the FASB Master Glossary or IAS 2 standards consider the risk and return considerations that are necessary for a determination of value.

Valuation Guidance and Practice

As noted above, the AICPA released its Working Draft of Inventory Valuation Guide from Forthcoming AICPA Accounting and Valuation Guide Business Combinations. As the AICPA Working Draft is a Guide, it provides a significant level of detail and examples. Although much of the Working Draft is beyond the scope of IVS 230 Inventory, the Boards felt that many of the general principles were instructive for this Exposure Draft.

The Boards note that the AICPA Working Draft highlights certain concepts that may not be consistently applied in practice. Historical practice often implicitly assumed that the assignment of profit margins for the effort contributed pre measurement date should be equivalent to the expected efforts post measurement date. However, the Working draft contends that in most instances there is not a rationale to assume profit margins that are proportional to costs incurred. The Boards agree that in many cases the risks assumed, value added, or intangibles contributed to the inventory pre-measurement date are often not the same as those contributed post-measurement date. The Boards note that the recommendation to more accurately identify the value added and risk born at different stages of the value creation process is consistent with other recent standards issued by the IVSC. For example, Paragraph 60.5(b) of the IVS 220 Non-Financial Liabilities Exposure Draft states:

“…an initial starting point may be to utilise the operating profit of the company. However, this methodology assumes the profit margin would be proportional to the costs incurred. In many circumstances there is rationale to assume profit margins which are not proportional to costs.”

Additionally, Paragraph 50.40 of the IVS 105 states:

“A valuer should consider the impact intercompany arrangements and transfer pricing have on the discount rate. For example, it is not uncommon for intercompany arrangements to specify fixed or guaranteed returns for some businesses or entities within a larger enterprise, which would lower the risk of the entity forecasted cash flows and reduce the appropriate discount rate. While other businesses or entities within the enterprise are deemed to be residual earners in which both excess return and risk are allocated, thereby increasing the risk of the entity forecasted cash flows and the appropriate discount rate.”

Second, the Working Draft highlights two key considerations related to intangible assets. First, is the inclusion of internally developed intangible assets in either the cost structure or
the functional apportionment of profit. The Boards agree that internally developed intangible assets should either be modelled as 1) a cost as if they were hypothetically licensed, and therefore included in either the cost of production or disposal, or 2) considered as part of a functional apportionment when determining the appropriate profit allowance. The second area in which the Working Draft advances the discussion on intangible assets is considerations for whether the intangible asset has been contributed to the inventory before or after the measurement date. For certain intangible assets (eg, manufacturing IP), the determination is relatively straightforward. However, for marketing intangibles the determination of whether the intangible is an attribute of the inventory may be difficult. IVS 230 Inventory highlights certain considerations in these areas for the valuer to consider, but the Boards felt there was sufficient diversity in practice and geographic differences in stage of adoption to provide more definitive requirements.

The Boards also identified OECD guidelines, as they relate to the internal transfer of tangible property, as potentially informative to the valuation of inventory. The OECD guidelines outline various methods that are categorised as either traditional transaction methods or transactional profit methods. The traditional transaction methods are generally synonymous with the market approach as discussed within IVS and the transactional profit methods are income-based methods.

While not directly applicable to inventory valuation, many of the principles within the OECD guidelines are consistent with those in the AICPA Working Draft and common valuation practice. For example, under the comparable uncontrolled price method (CUP) the guidelines note that:

“The uncontrolled transaction is comparable to a controlled transaction (ie, it is a comparable uncontrolled transaction) for purposes of the CUP method if one of two conditions is met: a) none of the differences (if any) between the transactions being compared or between the enterprises undertaking those transactions could materially affect the price in the open market; or, b) reasonably accurate adjustments can be made to eliminate the material effects of such differences. Where it is possible to locate comparable uncontrolled transactions, the CUP method is the most direct and reliable way to apply the arm’s length principle. Consequently, in such cases the CUP method is preferable over all other Methods.”

As noted by the above, similar to IVS, the OECD guidelines place emphasis and preference on market observable inputs. However, the guidelines also note the limitations of market-based approaches in the context of the transfer of physical goods such as inventory, noting that such approaches are more useful for the transfer of “commodities” 3.

Although categorised as a transaction method, the resale price method (RPM) examines the arm’s length nature of a transaction by reference to the gross margin that the party that purchases products via the intercompany transaction obtains on the resale of such products 4.

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2 OECD Transfer Pricing Guidelines 2017
3 OECD Transfer Pricing Guidelines 2017
4 OECD Transfer Pricing Guidelines 2017, p106

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The considerations in the RPM mirror those for the profit allowance on the disposal effort on finished goods under the Comparative Sales Method (CSM).

The cost-plus method (CPM) evaluates the arm’s length nature of prices for the transfer of products by comparing the seller’s gross profit mark-up to gross profit mark-ups achieved in comparable uncontrolled transactions. The method is typically applied to the related party performing manufacturing or assembly functions, i.e., the seller in the intercompany transaction. Again, similarities exist with determination of profit allowance on the completion effort under the CSM, but also with profit assumptions on the manufacturing effort under the Cost of Reproduction Method (CRP).

Finally, the profit split method (PSM) evaluates the arm’s length nature of a transaction by reference to how the overall profit or loss related to the transaction is allocated among the related parties in comparison with each party’s relative contributions to the transaction. The method emphasises examination of the non-routine contributions to the value creation process as well as the risks borne in the process. These concepts have direct overlap with the AICPA Working Draft contention that in most instances there is not a rationale to assume profit margins that are proportional to costs incurred. In other words, the OECD guidelines also highlight that the risks assumed, value added, or intangibles contributed at various stages in the inventory life cycle are not the same.

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5 OECD Transfer Pricing Guidelines 2017, p111  
6 OECD Transfer Pricing Guidelines 2017, P133
III. Findings

Consensus Themes

Based on research and industry practice, the Boards observed two primary methods used to determine the value of inventory: the Bottom-Up Method and the Top-Down Method.

The Bottom-Up Method, commonly used to value raw materials, estimates the cost that the buyer would have incurred in acquiring the same amount and type of inventory in the marketplace. The components of cost under this method may include purchasing, handling, transporting, and storing the inventory. The cost basis is then adjusted for other relevant factors, such as obsolescence and compensation to the seller for a return on expenditures.

The Top-Down Method, commonly used to value WIP and finished goods, values inventory at a base cost equivalent to the actual or expected selling price to customers in the ordinary course of business. The base cost is then adjusted for various factors, such as expenses incurred in disposition, profit commensurate with the degree of risk and amount of investment, and the time/cost required to dispose of the inventory.

Although there is general consensus that the Top-Down Method is most often applied for the valuation of WIP and finished goods, recent guidance is moving best practices toward a more systematic and detailed approach to allocate the value creation before and after the measurement date.

Recent guidance from both the AICPA and OECD stress the importance of identifying the value added from the non-value added functions in the manufacturing and disposal of inventory. Application of this principle has resulted in the identification of additional complexities and considerations not previously scrutinised in detail. Such considerations include: accounting for internationally generated IP in the cost structure or apportionment analysis, whether relevant intangible assets are effectively imbedded in the inventory, identification of costs that benefit future periods, the allocation of overhead expenses, etc.

The Boards agree with this principle, and noted consistency with other aspects of recent IVSC publications. However, given the relatively new concepts in this area, the Boards do not believe it is appropriate for IVS 230 to provide detailed guidance on derivation. Rather, the Boards have sought to highlight such concepts for consideration as the Boards believe there may be multiple reasonable approaches available to valuers to appropriately address these issues.
IV. Draft Standard

IVS 230 Inventory

10. Overview

10.1 The principles contained in the General Standards apply to valuations of inventory and valuations with an inventory component. This standard contains additional requirements for valuations of inventory.

20. Introduction

20.1 Inventory broadly includes goods which will be used in future production processes (ie, raw materials, parts, supplies), goods used in the production process (ie, work-in-process), and goods awaiting sale (ie, finished goods).

20.2 This standard focuses on valuation of inventory of physical goods that are not real property, as the numerous and varied aspects of real property inventory were not considered or contemplated in the preparation of this standard. The valuation of real property is covered in IVS 410 Development Property.

20.3 While the book value of inventory only includes historical costs, the profits earned in the production process, which reflect returns on the assets utilised in manufacturing (including working capital, property, plant, and equipment, and intangible assets), are not capitalised into book value. As a result, the Market Value of inventory typically differs from, and is usually higher than, the book value of inventory.

20.4 As inventory is seldom transacted at an interim stage (eg, work-in-process) or may not be frequently sold to a third party to conduct the selling effort (eg, finished goods sold via distributor networks), the valuation techniques and considerations for inventory frequently vary from those of other assets.

20.5 Inventory valuations are performed for a variety of purposes. It is the valuer’s responsibility to understand the purpose of a valuation and whether the inventory should be valued, whether separately or grouped with other assets. A non-exhaustive list of examples of circumstances that commonly include an inventory valuation component is provided below:

(a) For financial reporting purposes, valuations of inventory are often required in connection with accounting for business combinations, asset acquisitions and sales, and impairment analysis.

(b) For tax reporting purposes, inventory valuations are frequently needed for transfer pricing analyses, estate and gift tax planning and reporting, and ad valorem taxation analyses.

(c) Inventory valuation may be the subject of litigation, requiring valuation analysis in certain circumstances.

(d) Valuers are sometimes asked to value inventory as part of general consulting, collateral lending, transactional support engagements and insolvency.
30. **Bases of Value**

30.1 In accordance with IVS 104 *Bases of Value*, a *valuer must* select the appropriate basis(es) of value when valuing inventory.

30.2 Often, inventory valuations are performed using bases of value defined by entities/organisations other than the IVSC (some examples of which are mentioned in IVS 104 *Bases of Value*) and the *valuer must* understand and follow the regulation, case law, and other interpretive guidance related to those bases of value as of the valuation date.

40. **Valuation Approaches and Methods**

40.1 The three valuation approaches described in IVS 105 *Valuation Approaches* can all be applied to the valuation of inventory. The methods described below simultaneously exhibit elements of the Cost Approach, Market Approach, and Income Approach. If necessary for the *valuers* to classify a method under one of the three Approaches, the *valuers should* use judgement in making the determination and not necessarily rely on the classification below.

40.2 When selecting an approach and method, in addition to the requirements of this standard, a *valuers must* follow the requirements of IVS 105 *Valuation Approaches*, including para 10.3.

50. **Market Approach**

50.1 The market approach, ie, reference to market activity involving identical or similar goods, has only narrow direct application for the valuation of inventory. Such applications typically include 1) inventory of commoditised products, or 2) inventory in which a market exists for the inventory at an interim stage in the production process. For non-commodity traded products or products that a market exists at an interim production stage, such selling prices *must* be adjusted downward to account for the disposal effort and related profit.

50.2 While the market approach is not directly applicable in most instances, *valuers should* consider market-based indications to determine the selling price as an input for other methods.

50.3 Other observable markets *may provide* insights on the returns attributable to the manufacturing and disposition of *assets* that can also be leveraged for inputs into other methods. Such returns are typically considered to exclude returns attributable to intellectual property. For example:

(a) Distributor profit margins represent a meaningful market proxy for returns on the disposition process, if an appropriate base of comparable companies is identified.

(b) Contract manufacturers, to the extent available, *may provide* a proxy for margins earned through the manufacturing process.

50.4 *Valuers must* comply with paras 20.2 and 20.3 of IVS 105 *Valuation Approaches and Methods* when determining whether to apply the market approach to the valuation of inventory. In addition, *valuers should* only apply the market approach to value
inventory if both of the following criteria are met:

(a) information is available on arm’s length transactions involving identical or similar inventory on or near the valuation date, and

(b) sufficient information is available to allow the valuer to adjust for all significant differences between the subject inventory and those involved in the transactions.

50.5 Where evidence of market prices is available, valuers should make adjustments to these to reflect differences between the subject inventory and those involved in the transactions. These adjustments are necessary to reflect the differentiating characteristics of the subject inventory and those involved in the transactions. Such adjustments may only be determinable at a qualitative, rather than quantitative, level. However, the need for significant qualitative adjustments may indicate that another approach would be more appropriate for the valuation. (See IVS 105 Valuation Approaches and Methods paras 10.1-10.10).

60. Income Approach

60.1 The valuation of inventory using the income approach requires the allocation of profit (value) contributed pre-valuation date versus the profit (value) contributed post-valuation date.

60.2 Valuers must comply with paras 40.2 and 40.3 of IVS 105 Valuation Approaches and Methods when determining whether to apply the income approach to the valuation of inventory.

Top-Down Method

60.3 The Top-Down Method is a residual method that begins with the estimated selling price and deducts remaining costs and estimated profit.

60.4 The Top-Down Method attempts to bifurcate the efforts, and related value, that were completed before the measurement date versus those efforts that are to be completed after the measurement date.

60.5 The key steps in applying the Top-Down Method are to:

(a) Estimate the selling price. The valuer should rely on direct observations of selling prices when the information is available. However, such data is often not available and the selling price is often estimated by applying an appropriate gross profit margin to the net book value of finished goods at the product level or aggregate level. Typically, the projected gross profit margin in the period the inventory will be sold is used.

(b) Estimate the costs to complete (for work-in-process only). Completion costs should include all of the expenditures directly or indirectly remaining to be incurred post-valuation date in bringing the WIP inventory to its finished condition. Costs to complete should be adjusted to remove expenses benefitting future periods.

(c) Subtract the costs of disposal. Costs of disposal represent costs that would be incurred post-valuation date in order to deliver the finished goods to the end customer. Costs of disposal should be adjusted to remove expenses benefitting
future periods. Disposal costs generally include selling and marketing expenses while procurement and manufacturing expenses have typically already been incurred for finished goods inventory. In order to properly determine costs of disposal, each expense in the inventory cycle (including indirect overhead) should be categorised as having been incurred and, therefore, contributed to the value of the finished goods inventory or remaining to be incurred during the disposal process.

(d) Subtract the profit allowance on the completion effort (for work-in-process only) and the disposal process. An initial starting point may be to utilise the operating profit of the company. However, this methodology assumes the profit margin would be proportional to the costs incurred. In most circumstances there is rationale to assume profit margins which are not proportional to costs (see Section 90).

(e) Consider any necessary holding costs. Holding costs may need to be estimated in order to account for the opportunity cost associated with the time required to sell the inventory. Additionally, the valuer should consider the risk borne during the holding period when determining the required rate of return. Risks may be a function of the length of inventory life cycle and the contractual arrangements with end customers (e.g., manufacturer bears the risk of fluctuation in costs of completion and disposal). Holding costs may be immaterial if the inventory turnover is high and/or the borrowing rate is low.

60.6 When determining the cost to complete, costs of disposal and profit allowance, the valuer should identify and exclude any expenses that are intended to provide future economic benefit and are not necessary to generate the current period revenue. Examples of future-benefit expenses may include research and development (“R&D”) related to new product development; marketing for a new product; recruiting to increase the size of the workforce; expansion into a new territory; depreciation of an R&D facility dedicated to future research; or restructuring costs.

60.7 Internally developed intangible assets should either be modelled as 1) a cost as if they were hypothetically licensed, and therefore included in either the cost of production or disposal, or 2) considered as part of a functional apportionment when determining the appropriate profit allowance.

60.8 When utilising the Top-Down Method, valuers should consider whether sufficient data are available to appropriately apply the key steps. If sufficient data is not available, it may be appropriate to apply other methods or techniques.

60.9 The valuer may use the Bottom-Up Method (see paras 60.9 to 60.10) to corroborate the value derived from the Top-Down Method.
**Bottom-Up Method**

60.10 The key steps in applying the Bottom-Up Method are to:

(a) Determine the book value of the *subject* inventory. The book value *may* need to be adjusted for multiple considerations (see para 70.4 and section 110).

(b) Add any cost of buying and holding already incurred.

(c) Add any cost toward completion already incurred. Such costs typically include procurement and manufacturing expenses.

(d) Add profit on total costs already incurred. An initial starting point *may* be to utilise the operating profit of the company. However, this methodology assumes the profit margin would be proportional to the costs incurred. In most circumstances there is rationale to assume profit margins which are not proportional to costs (see section 90).

60.11 When determining the costs already incurred, *valuers should* consider internally developed intangible assets that have contributed toward the completion effort.

70. **Cost Approach**

70.1 The primary method to value inventory is the replacement cost method. Raw materials inventory is typically valued using the Current Replacement Cost Method.

70.2 *Valuers must* comply with paras 60.2 and 60.3 of IVS 105 *Valuation Approaches and Methods* when determining whether to apply the cost approach to the valuation of inventory.

**Current Replacement Cost Method**

70.3 The Current Replacement Cost Method (CRCM) *may* provide a good indication of market value if inventory is readily replaceable in a wholesale or retail business (eg, raw materials inventory).

70.4 The market value of raw materials and other inventory *may* be similar to the net book value as of the valuation date but certain adjustments *should* be considered.

(a) The book value *may* need to be adjusted to FIFO basis.

(b) If raw material prices fluctuate and/or the inventory turnover is slow the book value *may* need to be adjusted for changes in market prices.

(c) The book value of raw materials *may* also be decreased to account for obsolete and defective goods.

(d) The book value *may* also need to be decreased for shrinkage, which is the difference between inventory listed in the accounting records and the actual inventory due to theft, damage, miscounting, incorrect units of measure, evaporation, etc.

(e) The book value *may* need to be increased for any costs incurred in connection with raw material preparation (eg, purchasing, storage and handling).
80. Special Considerations for Inventory

80.1 The following sections address a non-exhaustive list of topics relevant to the valuation of inventory.

(a) Identification of Value-Added Processes and Returns on Intangible Assets (section 90).

(b) Relationship to Other Acquired Assets (section 100).

(c) Obsolete inventory – Reserves (section 110).

(d) Unit of Account (section 120)

90. Identification of Value Added Processes and Returns on Intangible Assets

90.1 The valuation of inventory involves an allocation of profit between the profit earned pre-measurement date and the profit earned post-measurement date. In practice, profit earned may not be proportional to expenses. In most cases the risks assumed, value added, or intangibles contributed to the inventory pre-measurement date are not the same as those contributed post-measurement date.

90.2 Valuers typically should not simply allocate profit in proportion to disposition and manufacturing costs. This assumption can misallocate profit, as it presupposes that a company’s production process earns profit on a pro-rata basis based on costs incurred. For manufacturers, this method is inappropriate if materials costs represent an initial outflow without significant efforts. Such an assumption also fails to recognise the contribution of internally-generated intangible assets with minimal associated costs.

90.3 Valuers should distinguish between value-added costs and those that are not value-added. The materials portion of COGS may not be a value-added cost because it does not contribute any of the profit to the inventory.

90.4 For a company that owns internally developed intangible assets that contribute to an increase in the level of profitability, the return on and of those intangible assets would be included in the total profit margin of the business. However, whether intangible assets are owned or licensed, the Market Value of the inventory should be the same.

90.5 The valuer should determine the extent to which the technology, trademarks, and customer relationships support the manufacturing and distribution processes and whether the returns are applicable to the entire base of revenue. If the intangible asset has been utilised to create the inventory (e.g., a manufacturing process intangible), then the value of the inventory would be increased. Conversely, if the intangible asset is expected to be utilised in the future, at the time of disposal, the value of the inventory would be decreased.

90.6 For marketing intangibles, the determination of whether the intangible is an attribute of the inventory may be difficult. To assist with the determination, the valuer may consider how the inventory would be marketed by a market participant to its customers – pull vs push model. A push model requires significant disposal efforts for inventory and is less reliant on marketing intangibles, while a pull model depends on strong brand development and recognition to pull customers to the product.
90.7 A non-exhaustive list of other considerations for evaluating when intangible assets are contributed may include the amount of marketing spend, whether products are sold through a distributor, level of attrition for customer relationships, and any legal rights associated with the intangible assets.

90.8 In some cases, the intangible asset may consist of several elements that contribute to various aspects of the value creation, such as a pharmaceutical product intangible asset that is comprised of technology and tradename. This requires an assessment of how the overall profit related to each element of the intangible asset should be apportioned to manufacturing the inventory versus in the disposal effort.

90.9 Similarly, although a single intangible asset may only contribute to either the manufacturing or disposal effort, it is possible for a portion of the intangible to be contributed pre-measurement date and a portion contributed post-measurement date. For example, when assessing the contribution of symbolic IP for finished goods, although the product bears the respective branding associated with the symbolic IP, the related right to sell the branded product may not be conveyed with the transfer of inventory. As such, it may be appropriate to consider such rights in the costs of disposal.

100. Relationship to Other Acquired Assets
100.1 The valuer should maintain consistency, as appropriate, between assumptions used in the inventory valuation relative to valuation of other assets or liabilities.

110. Obsolete Inventory Reserves
110.1 The valuer should account for obsolete inventory reserve balances. The inventory reserve balances should be applied to the inventory in which the reserve applies, rather than netted against the entire inventory balance.

110.2 Typically, the obsolete inventory adjusted for the inventory reserve would not be valued as it has been adjusted to net realisable value. However, the valuer may need to consider further write-downs if Market Value is lower than net realisable value.

120. Unit of Account
120.1 For purposes of inventory valuation, it is often appropriate to assume inventory is one homogenous set of assets. However, it is possible for the profit margins, risk, and intangible asset contributions to vary by product or product group.

120.2 If the profit margins, risk, and intangible asset contributions vary by product or product group, and the relative mix of inventory being valued does not match the assumed sales mix used to develop the assumptions for the valuation, the valuer should assess the different groups of inventory separately.
Consultation Questions

1. Please provide any comments or suggested edits to the draft standard for consideration by the Boards.
2. Are you aware of additional applicable guidance not cited in this Exposure Draft?
3. Are you aware of additional methods or best practices to value inventory not cited in this Exposure Draft?
4. Do you believe that the addition of IVS 230 to IVS will help reduce diversity in practice and enhance practice with regard to the valuation of inventory?
5. Do you agree with the classification of the Top-Down Method and Bottom-Up Method under the Income Approach? If not, do you believe they would be more appropriately classified under the Market or Cost Approach, or under a new category such as the Hybrid Approach?
6. Do you agree that real property assets should be excluded from the scope of IVS 230?

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Please send comments to: comments@ivsc.org